

MOVAR: Monitoring the Upper Ocean Thermal Variability between Rio de Janeiro and Trindade Island

Mauricio Mata (FURG), Mauro Cirano (UFBA), Edmo Campos (USP)

- PRIMARY OBJECTIVE

Take advantage of the Brazilian Navy regular supply ships to Trindade Is. to obtain a high-resolution time-series (spatial resolution $\sim 15\text{nm}$; ~ 3 months time resolution) of the upper ocean thermal structure in a sparsely sampled area of the SW Atlantic.

That is accomplished using a high-resolution XBT line and will help to elucidate several aspects of the gyre scale circulation and its variability, help to calibrate models and allow comparisons with other ocean basins.

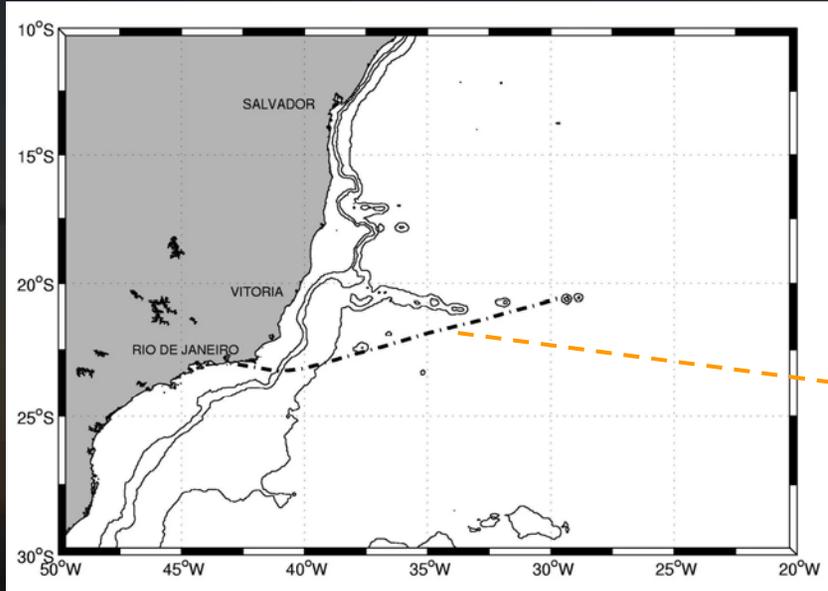
- OTHER OBJECTIVES

- Conjugate the XBT time-series with the launch of drifting buoys so as to better understand the circulation in this area and further contribute to programs like PNBOIA, ARGO and the Global Drifter Program.
- Compare the large scale variability information from the in-situ observations with quasi-synoptic satellite data (sst, altimeter, color)

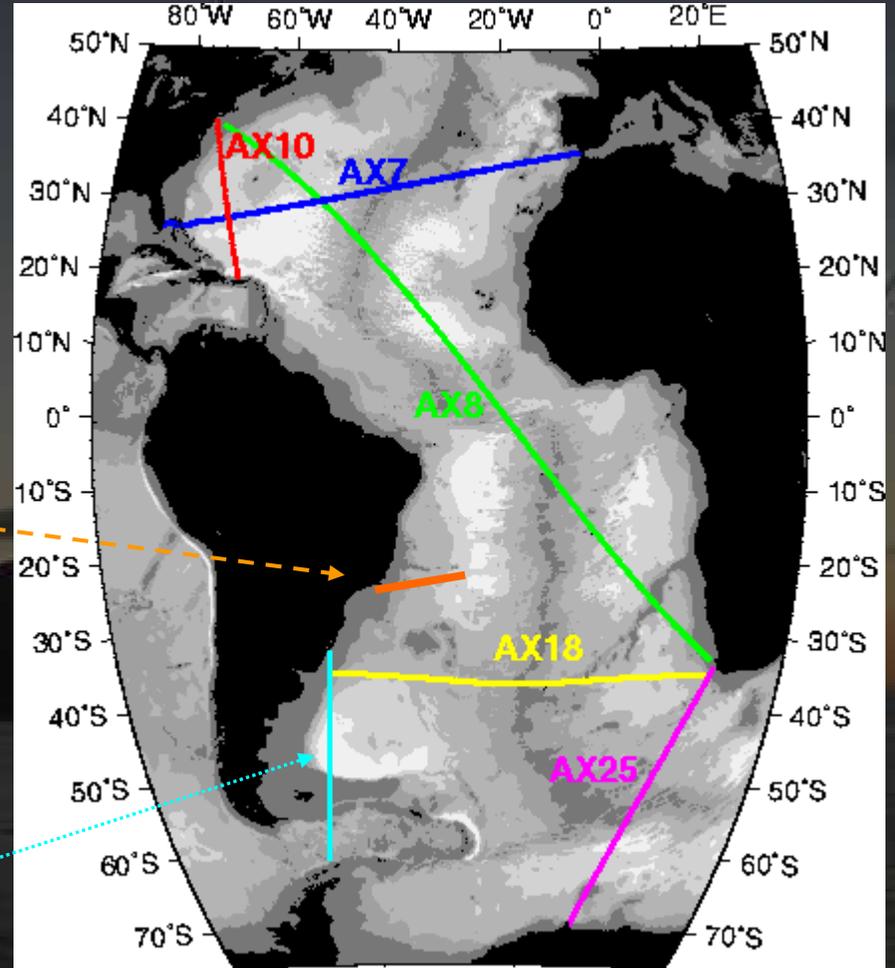
- SUPPORT

MOVAR activities are supported by several institutions: FURG, UFBA, GOOS/Regional, Brazilian Navy, SeCIRM, CNPq and NOAA/AOML.

MOVAR planned repeat line

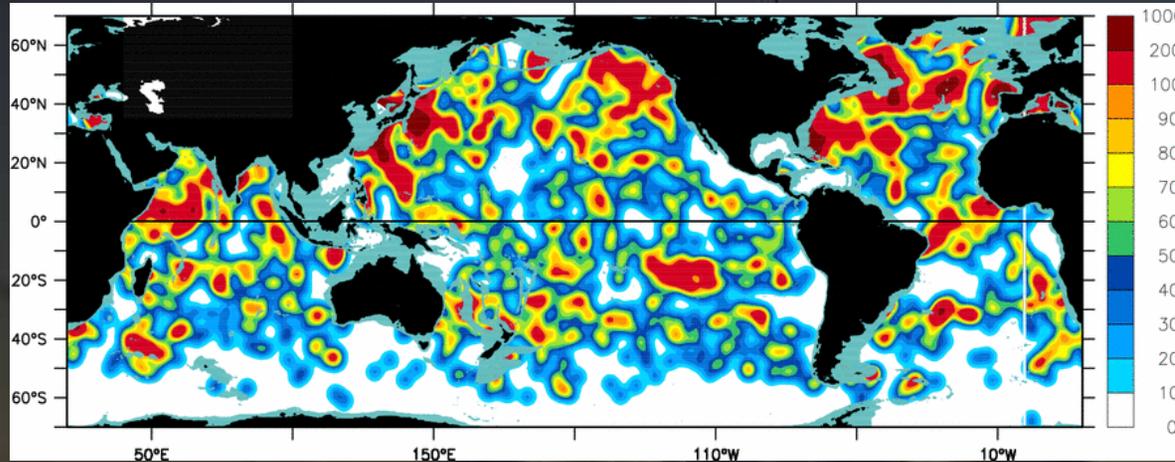


GOAL yearly line

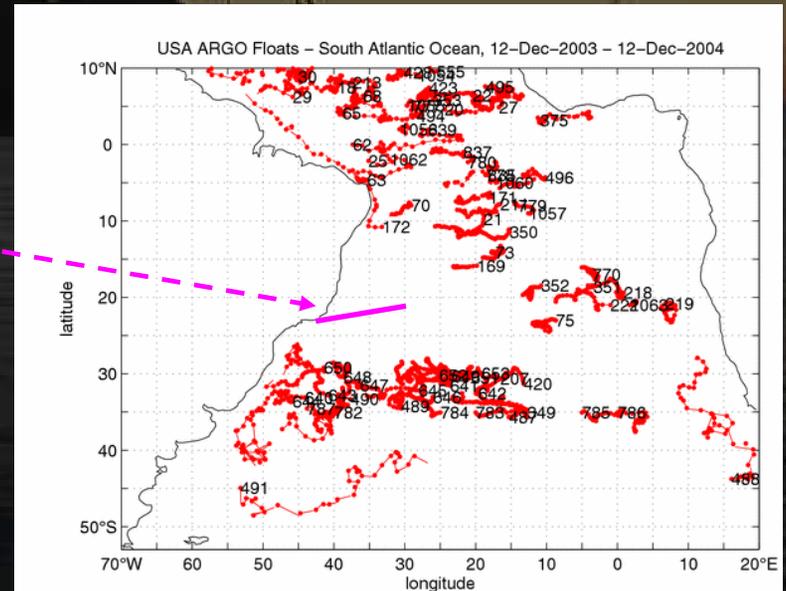
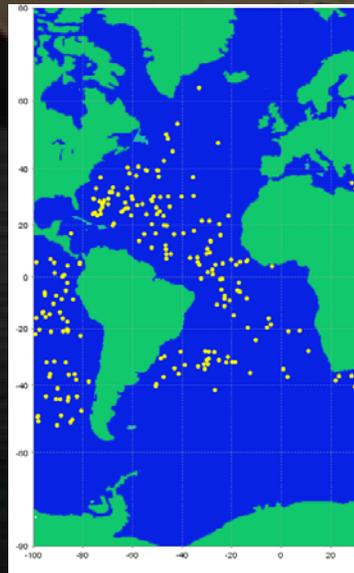


MOVAR and ARGO Drifters

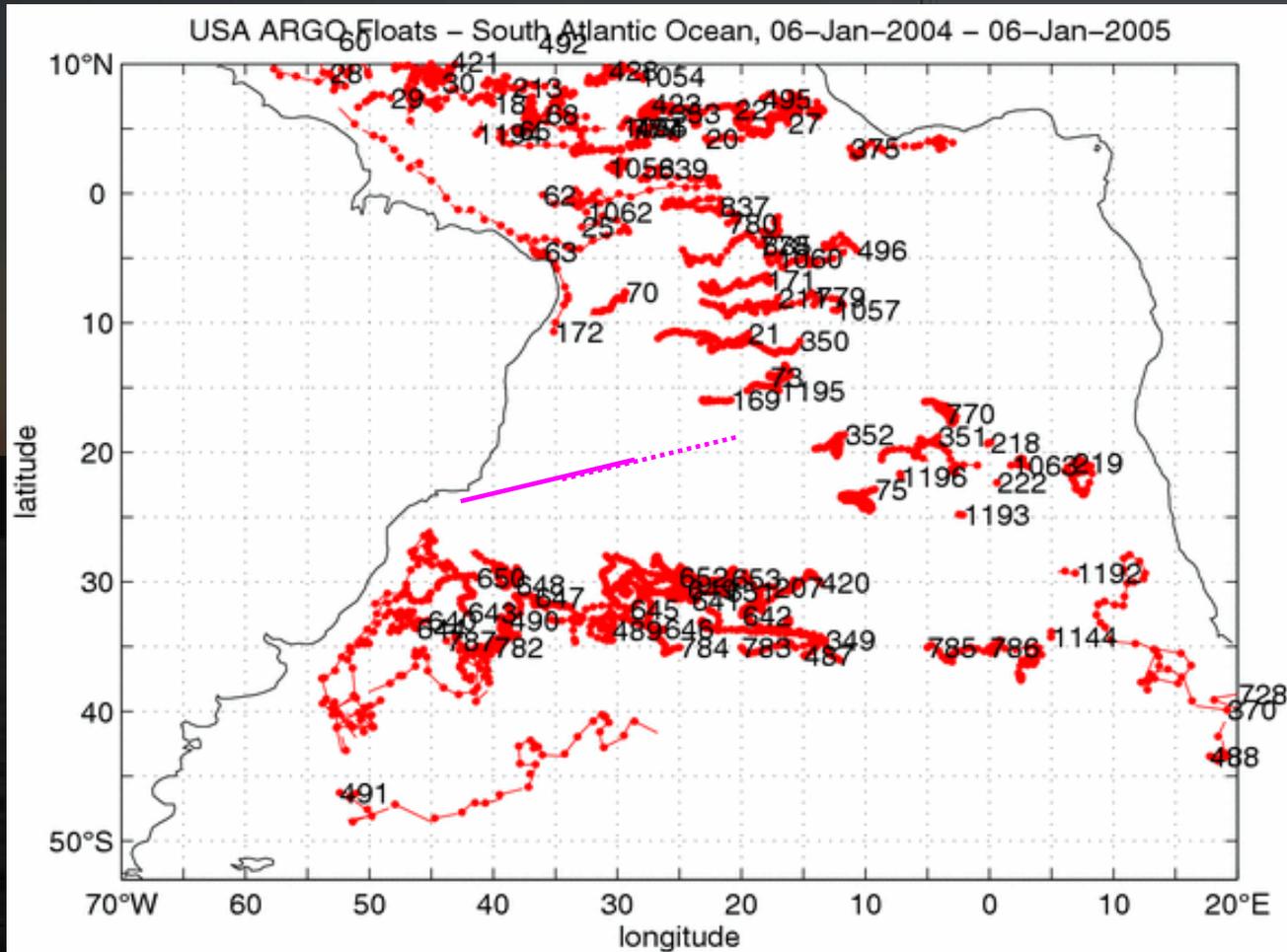
ARGO Profiling Floats density over the world ocean



ARGO Profiling Floats last observed positions in the Atlantic Ocean



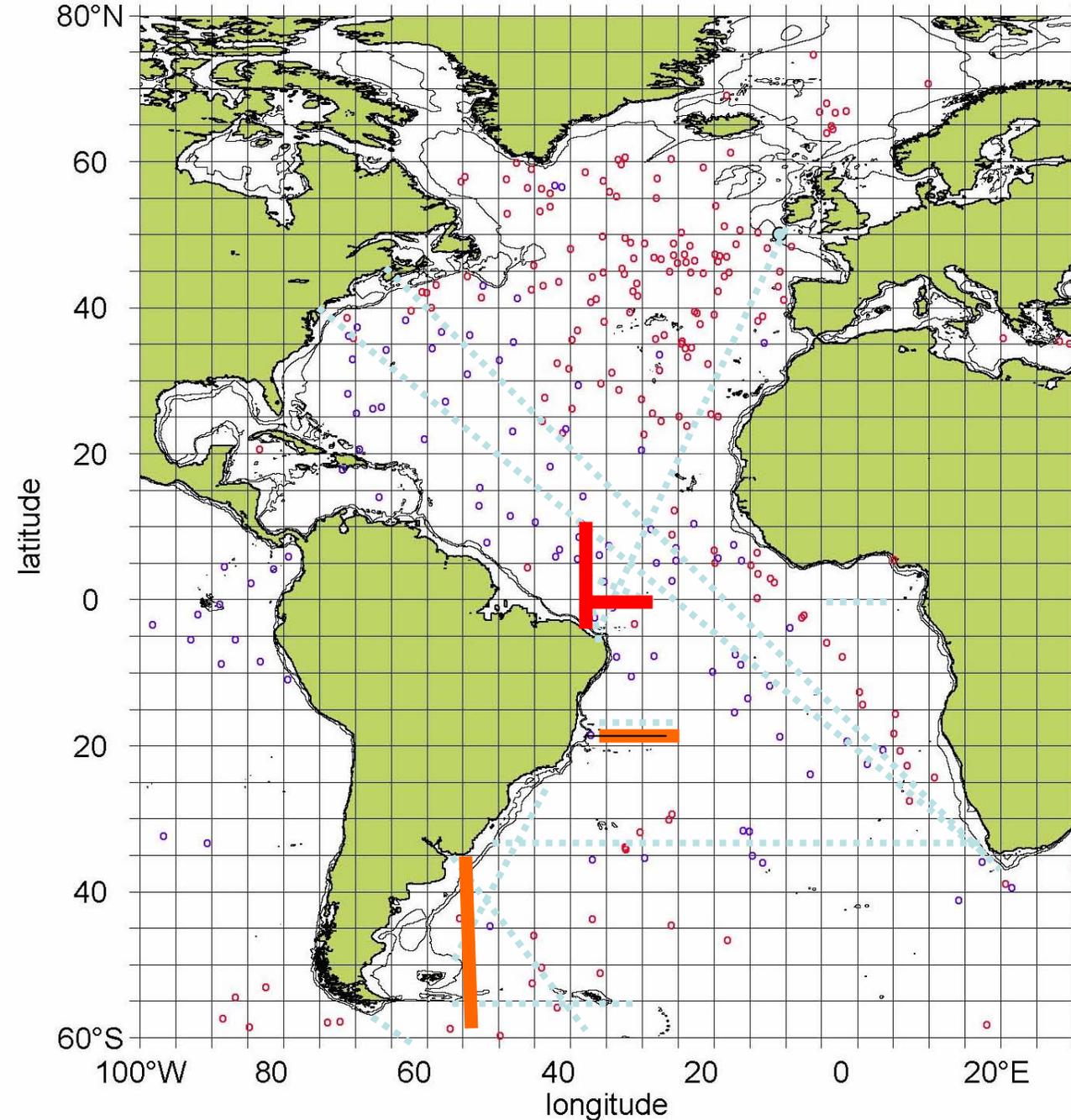
MOVAR II



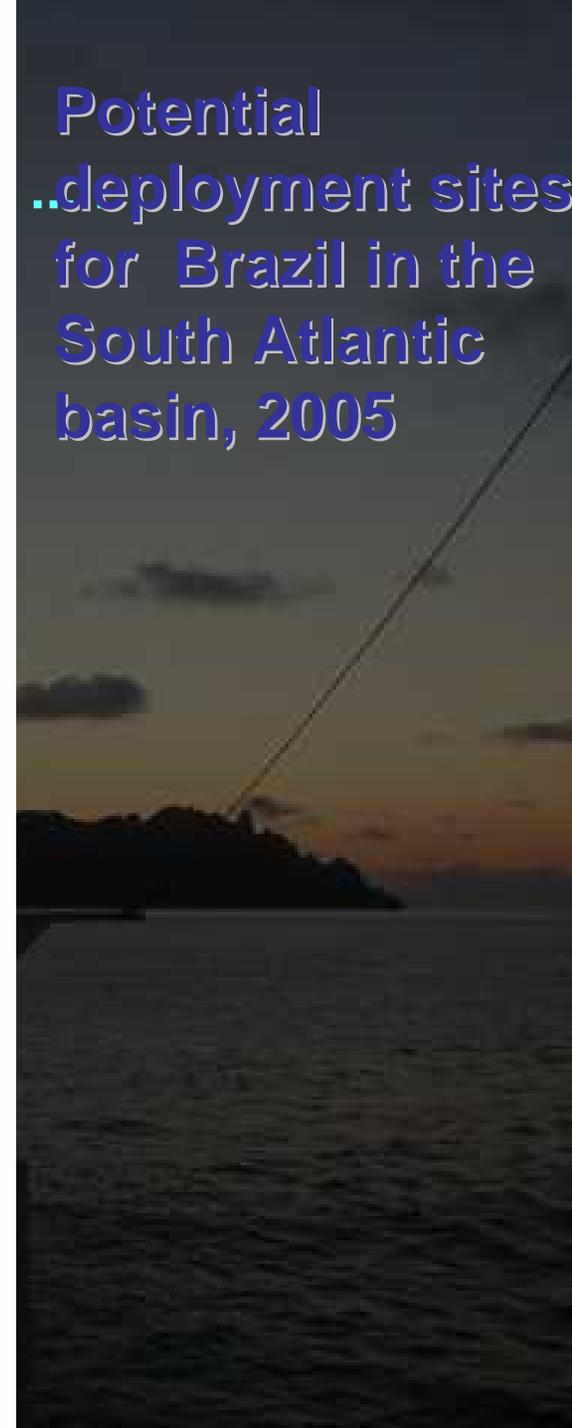
MOVAR II Timeline

- Dec 2004: MOVAR-II first talks during the PIRATA-X in Fortaleza (BRA)
- Jan 2005: Submission of plan of action to the Brazilian Navy through GOOS/Br Office
- May 2005: Floats Shipping from WHOI to Brazil.
- June 2005: POGO Supports visit of one MOVAR tech. to the USA.
- July/Aug 2005: 1st MOVAR Extended Line

ARGO Oct 24, 2003 Red: international; Blue: USA



Potential
deployment sites
for Brazil in the
South Atlantic
basin, 2005



Thanks !

